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10/552,776	10/12/2005	Jakob Gerrit Nijboer	NL 030432	2130
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/552,776	NIJBOER ET AL.
	Examiner CHIBUIKE K. NWAKAMMA	Art Unit 2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 April 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04/08/2008 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/0256/06)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

An amendment dated 04/08/08 has been considered with the following results:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable as over Shishido (US 2001/0026518 A1) in view of Igarashi (Patent No. 5802028).

Regarding claim 1, Shishido discloses a device (Fig. 7, element 30; [0061-0063]) for recording data and data structures on a write-once storage medium ([0037]; [0057]... packet consists of data blocks...contains 2352-byte user data equates to as data structure).

writing means for recording the data and the data structures (Fig. 7, elements 31-33, 42-43 and [0017]...data recording means...packet position recording means...wherein the data recording means records a new data on a track);

controlling means for generating the data structures and controlling the writing means ([0062-0064]; Fig. 7, elements 36, 37 are control means for generating data structures [0057]... packet consists of data blocks...contains 2352-byte user data equates to as data structure);

characterized in that the controlling means (Fig. 7, elements 36, 37) are adapted to record the data structures at a predefined temporary location in a reserved area on

the write-once storage medium, i.e., CD-R, (Figs. 7, 11; [0101]...a reserved region...in the pre-gap; [0103]...when a data write is performed; 0104]...orange book specification...packet position information are recorded in these reserved regions and [0062]) and to finalize the write-once storage medium by recording the data structures at a predefined fixed location as defined for a rewritable storage medium ([0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. So, a finalizing process of the write-once storage medium, i.e., CD-R, is met), wherein the predefined fixed location is a different location than the temporary location (Figs. 5-6 and [0047]...rewritable optical disc such as CD-R and CD-RW; [0054]...user data region 18, a fixed length packet write method is used...one packet has length fixed to a predetermined data block. Note: it is clear the predetermined fixed location in the CD-R is different from CD-RW predefined fixed location).

However, Shishido does not disclose data structures comprising space bitmap and defect management structure.

Igarashi discloses data structures comprising space bitmap and defect management structure (Col. 10, lines 15-34; Col. 8, lines 25-48 discloses of a space bit map and a defect management structure, i.e., defective allocation block).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Shishido with the teachings of Igarashi to expressly disclose data structures comprising space bitmap and defect management structure, so, to record beforehand, prescribed data at other sectors in order to record data at sectors for a part of the cluster (Igarashi; Col. 8, lines 17-20).

Claim 4 is a method claim correspondent to the functional operation of the apparatus (device) claim 1. Therefore, claim 4 is analyzed and rejected as previously discussed with respect to claim 1.

Regarding claim 8, Shishido discloses a computer program product (Figs. 8-10) for recording data and data structures on a write-once storage medium, i.e., CD-R, ([0037]; [0057]... packet consists of data blocks...contains 2352-byte user data equates to as data structure), which program is operative to cause a processor to perform the method of claim 4 (Fig. 7).

However, Shishido does not disclose data structures comprising space bitmap and defect management structure.

Igarashi discloses data structures comprising space bitmap and defect management structure (Col. 10, lines 15-34; Col. 8, lines 25-48 discloses of a space bitmap and a defect management structure, i.e., defective allocation block).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the product of Shishido with the teachings of Igarashi

to expressly disclose data structures comprising space bitmap and defect management structure, so, to record beforehand, prescribed data at other sectors in order to record data at sectors for a part of the cluster (Igarashi; Col. 8, lines 17-20).

Claim 2, Shishido in view of Igarashi discloses a device as claimed in claim 1.

Shishido further discloses, characterized in that the controlling means ([0062-0064]; Fig. 7, elements 36, 37) are adapted to finalize the write-once, i.e., CD-R, storage medium ([0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. Therefore, a finalizing process of the write-once storage medium, i.e., CD-R, is met) by recording dummy data in all free parts of the reserved area (Igarashi; Col. 8, lines 57-67 discloses of recording dummy data at logical blocks; Col. 10, lines 35-39 discloses of reserved area, i.e., a region that has been allocated for recording data but data has not yet actually been recorded).

Claim 3, Shishido in view of Igarashi further discloses a device as claimed in claim 1.

Shishido further discloses, characterized in that the controlling means ([0062-0066]; Fig. 7, elements 36, 37) are adapted to read the data structures from the

predefined temporary location and to record the data structures at the predefined fixed location (Fig. 11; [0101-0104] and [0062]. A reserved area is disclosed as predefined in the Orange Book Specification. Therefore, the controlling means adapts to read/record data structures at a predefined fixed location, i.e., the reserved area is a predefined fixed location at bytes 13-23, 29-39, 45-55, and 61-71. Also, [0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. Therefore, reproducing/recording data structures at fixed location is accomplished).

Claim 5, Shishido in view of Igarashi further discloses a method as claimed in claim 4, characterized by a step of:

recording dummy data in all free parts of the reserved area (Igarashi; Col. 8, lines 57-67 discloses of recording dummy data at logical blocks; Col. 10, lines 35-39 discloses of reserved area, i.e., a region that has been allocated for recording data but data has not yet actually been recorded).

Claim 6, Shishido in view of Igarashi further discloses a method as claimed in claim 4, characterized by a step of:

Shishido further discloses, reading the data structures from the predefined temporary location ([0062-0066]; Fig. 7, elements 36, 37. Also, Figs. 7, 11; [0101]...a reserved region...in the pre-gap; [0103]...when a data write is performed; [0104]...orange book specification...packet position information are recorded in these reserved regions and [0062]. A reserved area is disclosed as predefined in the Orange Book Specification. Therefore, the controlling means adapts to read/record data structures at a predefined fixed location, i.e., the reserved area is a predefined fixed location at bytes 13-23, 29-39, 45-55, and 61-71. Also, [0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. Therefore, reproducing data structures at fixed location is accomplished).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable as over De Haan (US 2003/0068159 A1) in view of Shishido (US 2001/0026518 A1) and Igarashi (US 5802028).

Regarding claim 7, De Haan discloses a write-once storage medium that is finalized ([Abstract]...disc-like recording medium of the write-once type, [0090]...disc could be finalized; [0039]...last recording has been made and a disc finalization step is being performed). **However**, De Haan does not disclose the write-once storage medium

comprising data structures including space bit map and defect management structures, wherein the data structures are recorded at a predefined temporary location in a reserved area on the write-once storage medium and the data structures are recorded at a predefined fixed location as defined for a rewritable storage medium, wherein the predefined fixed location is a different location than the predefined temporary location.

Shishido discloses a write once storage medium (Fig. 7, element 1; [0037]), wherein the data structures are recorded at a predefined temporary location in a reserved area on the write-once storage medium , i.e., CD-R, (Figs. 7, 11; [0101]...a reserved region...in the pre-gap; [0103]...when a data write is performed; 0104]...orange book specification...packet position information are recorded in these reserved regions and [0062]) and the data structures are recorded at a predefined fixed location as defined for a rewritable storage medium ([0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. So, a finalizing process of the write-once storage medium, i.e., CD-R, is met), wherein the predefined fixed location is a different location than the predefined temporary location (Figs. 5-6 and [0047]...writable optical disc such as CD-R and CD-RW; [0054]...user data region 18, a fixed length packet write method is used...one packet

has length fixed to a predetermined data block. Note: it is clear the predetermined fixed location in the CD-R is different from CD-RW predefined fixed location).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the medium De Haan to include the teachings of Shishido where the data structures are recorded at a predefined temporary location in a reserved area on the write-once storage medium and the data structures are recorded at a predefined fixed location as defined for a rewritable storage medium, wherein the predefined fixed location is a different location than the predefined temporary location. The modification would have been obvious for the benefit of assuring affinity with the write-once disc and the rewritable disc (Shishido; [0104]).

However, De Haan and Shishido, in combination, do not disclose data structures including space bit map and defect management structures.

Igarashi discloses data structures comprising space bitmap and defect management structure (Col. 10, lines 15-34; Col. 8, lines 25-48 discloses of a space bit map and a defect management structure, i.e., defective allocation block).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the medium of De Haan modified by Shishido above with the teachings of Igarashi to expressly disclose data structures comprising space bitmap and defect management structure, so, to record beforehand, prescribed data at other sectors in order to record data at sectors for a part of the cluster (Igarashi; Col. 8, lines 17-20).

Cited References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki et al (US 2003/0218951 A1), Mine et al (US 5978336), Park et al (US 2004/0174793 A1).

Response to Arguments

4. Applicant's arguments, with respect to claims 1-8, filed 08 April 2008 have been fully considered but they are not persuasive.

5. On page 10 of applicant's remark, applicant argues "However, no sections of Shishido disclose closing the rewritable disc. Particularly, none of Shishido discloses or suggests recording the data structures at a predefined temporary location in a reserved area on the write-once storage medium and finalizing the write-once storage medium by recording the data structures at a predefined fixed location as defined for a rewritable storage medium, wherein the predefined fixed location is a different location than the predefined temporary location".

The Examiner respectfully disagrees because Shishido discloses a device (Fig. 7, element 30; [0061-0063]) for recording data and data structures on a write-once storage medium ([0037]; [0057]... packet consists of data blocks...contains 2352-byte user data equates to as data structure).

writing means for recording the data and the data structures (Fig. 7, elements 31-33, 42-43 and [0017]...data recording means...packet position recording means...wherein the data recording means records a new data on a track);

controlling means for generating the data structures and controlling the writing means ([0062-0064]; Fig. 7, elements 36, 37 are control means for generating data structures [0057]... packet consists of data blocks...contains 2352-byte user data equates to as data structure); characterized in that the controlling means (Fig. 7, elements 36, 37) are adapted to record the data structures at a predefined temporary location in a reserved area on the write-once storage medium, i.e., CD-R, (Figs. 7, 11; [0101]...a reserved region...in the pre-gap; [0103]...when a data write is performed; 0104]...orange book specification...packet position information are recorded in these reserved regions and [0062]) and to finalize the write-once storage medium by recording the data structures at a predefined fixed location as defined for a rewritable storage medium ([0047-0055]. Fig. 5 discloses a structure of an optical medium representing a write-once, i.e., CD-R, and a rewritable, i.e., CD-RW. Therefore, a position and/or location such as the program area, read-out area etc. as defined in the optical medium corresponds or is the same for both the CD-R and CD-RW. Data structures are recorded on packet basis at a predefined/predetermined fixed-length data block via fixed-length packet write method. So, a finalizing process of the write-once storage medium, i.e., CD-R, is met), wherein the predefined fixed location is a different location than the temporary location (Figs. 5-6 and [0047]...rewritable optical disc such as CD-R and CD-RW; [0054]...user data region 18, a fixed length packet write method is used...one packet has length fixed to a predetermined data block. Note: it is clear the predetermined fixed location in the CD-R is different from CD-RW predefined fixed

location. That is, a predetermined location in a CD-R and a predetermined location in a CD-RW comprises two different locations).

6. On pages 10-11, applicant argues "Accordingly, it is respectfully submitted that the device of claim 1 is not anticipated or made obvious by the teachings of Shishido in view of Igarashi. For example, Shishido in view of Igarashi does not disclose or suggest, a device that amongst other patentable elements, comprises a (illustrative emphasis added) "device for recording data and data structures on a write-once storage medium, the data structures comprising space bit map and defect management structures, the device comprising ... the controlling means are adapted to record the data structures at a predefined temporary location in a reserved area on the write-once storage medium and to finalize the write-once storage medium by recording the data structures at a predefined fixed location as defined for a rewritable storage medium, wherein the predefined fixed location is a different location than the predefined temporary location" as recited in claim 1, and as similarly recited in each of claims 4 and 7. Igarashi is introduced for allegedly showing other elements of the claims and as such, does nothing to cure the deficiencies in Shishido".

The Examiner respectfully disagrees in light of the above analysis and further, the combination of Shishido and Igarashi meets the limitation of claims 1 and 4 (see the rejection of claims 1 and 4 for full detail of the rejection). Further, the combination of De Haan in view Shishido and Igarashi meets the limitation of claim 7 (see the rejection of claim 7 for full detail of the rejection).

7. Dependent claims are rejected as they depend on a rejected base claim.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIBUIKE K. NWAKAMMA whose telephone number is (571)270-3458. The examiner can normally be reached on Mon-Thur and Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 5712727579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chibuike Nwakamma
01/08/08

/Thang V. Tran/
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